

Winkler Declaration

Exhibit A

CURRICULUM VITAE

NAME: **Jeffrey David Winkler**

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LEGAL CONSULTING EXPERIENCE (last four years):

- 2009 **Saul Ewing** Expert in organic chemistry. **Expert Report and Deposition (Celgene Corporation v. Cambrex)**
- 2008 **Kaye Scholer** Expert in organic chemistry. **Expert Report and Deposition (Sanofi-Aventis v Glenmark Pharmaceuticals; Civil Action No. 07-CV-05855)**
- 2007 **Baker Botts** Expert in organic chemistry and analytical services. **Expert Report and Deposition (Elan v Abraxis; Civil Action No. 06-438-GMS)**
- 2006 **Kirkland and Ellis** Expert in organic chemistry and photochemistry. **Expert Report and Deposition (Illumina v Affymetrix; Civil Action No. 04-901 JJF).**
- 2006 **Jones Day/Kaye Scholer** Expert in organic chemistry. **Expert Report, Deposition and Trial Testimony (Aventis Pharma Deutschland GmbH and King Pharmaceuticals, Inc. v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.; Civil Action No. 2:05cv421) and (Aventis Pharma Deutschland GmbH and King Pharmaceuticals, Inc. v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.; Civil Action No. 2:05cv421)**
- 2006 **Rothwell Figg Ernst and Manbeck** Consulting expert in organic chemistry and analytical services.
- 2006 **Jones Day/Kaye Scholer** Expert in organic chemistry. **Expert Report and Deposition (Aventis Pharma Deutschland GmbH and King Pharmaceuticals, Inc. v. Cobalt Pharmaceuticals, Inc.)**
- 2006 **Jenner Block LLP** Expert in organic chemistry (**McNeil, et. al. vs. Perrigo, et. al.**).

EDUCATION:

Post-doctoral: Columbia University. January 1982-August 1983.
Research Director: Professor Ronald Breslow.

Graduate: Columbia University. September 1977-December 1981.
M.A. 1978, M.Phil., Ph.D. 1981.
Thesis Advisor: Professor Gilbert Stork.

Undergraduate: Harvard College. September 1973-June 1977.
A. B. cum laude in Chemistry, 1977.

PROFESSIONAL EXPERIENCE:

Merriam Professor of Chemistry,
University of Pennsylvania, January 2001-

Professor, University of Pennsylvania
Department of Chemistry, July 1996-

Founding Member, University of Pennsylvania
Center for Cancer Pharmacology, May 1998-present

Associate Professor, University of Pennsylvania,
Department of Chemistry, July 1990-June 1996

Member, University of Pennsylvania Cancer Center,
July 1993-present

Assistant Professor, University of Chicago,
Department of Chemistry, September 1983-June 1990

AWARDS & HONORS:

Fellow, Japan Society for the Promotion of Science, 2010
Member, Synthetic and Biological Chemistry B Study Section,
Center for Scientific Review, National Institutes of Health, 2010-
2016
Lindback Award for Distinguished Teaching, 2007
Philadelphia Organic Chemists' Club Award, 2006
American Chemical Society Cope Scholar Award, 2000
Chairman, Philadelphia Organic Chemists' Club, 1995
American Cyanamid Young Faculty Award, 1989-1992
NIH-NCI Research Career Development Award, 1988-1993
Alfred P. Sloan Research Fellow, 1987-1989
Merck Foundation Award for Faculty Development, 1985
American Cancer Society Postdoctoral Fellow, 1982-1983

PROFESSIONAL ACTIVITIES

Member, Associate Editor, *Organic Letters*, 1999-
Petroleum Research Fund Advisory Board, 2009-
University Council Steering Committee, University of Pennsylvania 2009-
Faculty Senate Executive Committee, University of Pennsylvania, 2006-
Faculty Senate Committee on Faculty and the Academic Mission, University of Pennsylvania, 2009-

INVITED LECTURES SINCE 2002:

2002-2003

Plenary Lecturer, French-American Chemical Society, 2002
Pfizer Lecturer, University of
Waterloo, 2002
Novartis Lecturer, University of Texas at Austin
University of Rochester
Emory University
Alan Johnson Lecturer, University of Sussex, UK
Invited Speaker, Gordon Research Conference on Natural Products, July 2003

2003-2004

Stanford University
University of California at Berkeley
Glaxo Smith Kline
Amgen
Biogen
Yale University
Boston College
State University of New York at Stony Brook

2004-05

Plenary Speaker, Belgian Organic Chemistry Symposium
Abbott Laboratories Distinguished Lecturer in Organic Synthesis, Notre Dame University
California Institute of Technology

2005-2006

GlaxoSmithKline Symposium Lecture
Wyeth Synthesis Course (Princeton, Collegeville, Pearl River, Cambridge)

2006-2007

Roche Lectureship, University of Colorado
Invited Lecturer, 12th Brazilian Meeting on Organic Synthesis

2007-2008

Bristol-Myers Squibb
University of Wisconsin-Madison

2008-2009

National Taiwan University
National Tsing Hua University, Taiwan
Keynote Speaker, 9th International Symposium on Organic Reactions, 2008 (Chiayi, Taiwan)

PUBLICATIONS :

1. L. Blaszcak, J. Winkler, S. O'Kuhn, "A New Synthesis of Olefins from Ketones via Coupling of Lithium Dialkylcuprates with Enol Phosphate Diesters," *Tetrahedron Lett.* **1976**, 4405-4408.
2. G. Stork, C. Shiner, J. Winkler, "Stereochemical Control of the Internal Michael Reaction. A New Construction of trans-Hydrindane Systems," *J. Am. Chem. Soc.* **1982**, *104*, 310-312.
3. G. Stork, J. Winkler, C. Shiner, "Stereochemical Control of Intramolecular Conjugate Addition. A Short, Highly Stereoselective Synthesis of Adrenosterone," *J. Am. Chem. Soc.* **1982**, *104*, 3767-3768.
4. G. Stork, J. Winkler, N. Saccomano, "Stereochemical Control in the Construction of Vicinally Substituted Cyclopentanes and Cyclohexanes. Intramolecular Conjugate Addition of β -Ketoester Anions," *Tetrahedron Lett.* **1983**, 465-468.
5. J. Winkler, E. Coutouli-Argyropoulou, R. Leppkes, R. Breslow, "An Artificial Transaminase Carrying A Synthetic Macrocyclic Binding Group," *J. Am. Chem. Soc.* **1983**, *105*, 7198-7199.
6. W. Weiner, J. Winkler, S. Zimmerman, R. Breslow, "Mimics of Tryptophan Synthetase and of Biochemical Dehydroalanine Formation," *J. Am. Chem. Soc.* **1985**, *107*, 4093-4094.
7. R. Breslow, A. W. Czarnik, M. Lauer, H. Leppkes, J. Winkler, S. Zimmerman, "Mimics of Transaminase Enzymes," *J. Am. Chem. Soc.* **1986**, *108*, 1969-1979.
8. J. Winkler, V. Sridar, "Stereochemical Control of Transannular Radical Cyclizations. A New Approach to the Synthesis of Linearly Fused Cyclopentanoids," *J. Am. Chem. Soc.* **1986**, *108*, 1708-1709.

9. J. Winkler, J. Hey, P. Williard, "Inside-Outside Stereoisomerism: A Synthesis of *trans*-Bicyclo[5.3.1]undecan-11-one," *J. Am. Chem. Soc.* **1986**, *108*, 6425-6427.
10. J. Winkler, P. Hershberger, J. Springer, "A Stereoselective Synthesis of the Azaspiroundecane Ring System of (-)-Histrionicotoxin from (+)-Glutamic Acid," *Tetrahedron Lett.* **1986**, 5177-5180.
11. J. Winkler, J. Hey, S. Darling, "Studies Directed Towards the Synthesis of the Taxane Diterpenes: A Remarkable Rearrangement," *Tetrahedron Lett.* **1986**, 5959-5962.
12. J. Winkler, J. Hey, F. Hannon, P. Williard, "Intramolecular Photoaddition of Dioxolenones. An Efficient Method for the Synthesis of Medium-Sized Rings," *Heterocycles* **1987**, *25*, 55-60.
13. J. Winkler, K. Deshayes, "Photodynamic Macrocycles," *J. Am. Chem. Soc.* **1987**, *109*, 2190-2191.
14. J. Winkler, K. Henegar, P. Williard, "Inside-Outside Stereoisomerism II. Synthesis of the Carbocyclic Ring System of the Ingenane Diterpenes *via* the Intramolecular Dioxolenone Photocycloaddition," *J. Am. Chem. Soc.* **1987**, *109*, 2850-2851.
15. K. Henegar, J. Winkler, "A New Method for the Synthesis of Dioxolenones via the Carboxylation of Ketone Enolates with Anisyl Cyanoformate," *Tetrahedron Lett.* **1987**, 1051-1054.
16. J. Winkler, C. Muller, R. Scott, "A New Method for the Formation of Nitrogen-Containing Ring Systems *via* the Intramolecular Photocycloaddition of Vinylogous Amides. A Synthesis of Mesembrine," *J. Am. Chem. Soc.* **1988**, *110*, 4831-4832.
17. J. Winkler, J. Hey, P. Williard, "Inside-Outside Stereoisomerism III. The Synthesis of *trans*-Bicyclo[4.3.1]Decan-10-one," *Tetrahedron Lett.* **1988**, 4691-4694.
18. J. Winkler, V. Sridar, "Eight-Membered Ring Templates for Stereoselective Radical Cyclizations," *Tetrahedron Lett.* **1988**, 6219-6222.
19. J. Winkler, K. Deshayes, B. Shao, "Photodynamic Systems for Metal Ion Transport," *J. Am. Chem. Soc.* **1989**, *111*, 769-770.
20. J. Winkler, P. Hershberger, "A Stereoselective Synthesis of (-)-Perhydrohistrionicotoxin," *J. Am. Chem. Soc.* **1989**, *111*, 4852-4856.
21. J. Winkler, V. Sridar, L. Rubo, J. Hey, N. Haddad, "Inside-Outside Stereoisomerism IV. An Unusual Rearrangement of the *trans*-Bicyclo[5.3.1]Undecan-11-yl Radical," *J. Org. Chem.* **1989**, *54*, 3004-3006.
22. J. Winkler, C. Lee, L. Rubo, C. Muller, P. J. Squattrito, "Stereoselective Synthesis of the Tricyclic Skeleton of the Taxane Diterpenes. The First C-Silylation of a Ketone Enolate," *J. Org. Chem.* **1989**, *54*, 4491-4493.

23. J. Winkler, V. Sridar, M. Siegel, "Ten-Membered Ring Templates for Stereoselective Radical Cyclizations," *Tetrahedron Lett.* **1989**, 4943-4946.
24. J. Winkler, C. Muller, J. Hey, R. Ogilvie, N. Haddad, P. Squattrito, P. Williard, "The Effect of Chromophore Transposition on the Stereochemical Outcome of the Intramolecular Dioxenone Photocycloaddition Reaction," *Tetrahedron Lett.* **1989**, 5211-5214.
25. J. Winkler, N. Haddad, R. Ogilvie, "Intramolecular Photocycloaddition and Retro-Mannich Fragmentation of Tertiary Vinylogous Amides," *Tetrahedron Lett.* **1989**, 5703-5704.
26. J. Winkler, M. Finck-Estes, "Carbon-Carbon Bond Formation Under Aqueous Reaction Conditions Using Sulfonium and Selenonium Salt Electrophiles," *Tetrahedron Lett.* **1989**, 7293-7296.
27. J. Winkler, R. Scott, P. Williard, "Asymmetric Induction in the Vinylogous Amide Photocycloaddition. A Formal Synthesis of Vindorosine," *J. Am. Chem. Soc.* **1990**, *112*, 8971-8975.
28. J. Winkler, B. Hong, "Inside-Outside Stereoisomerism V. Synthesis and Reactivity of Bicyclo[n.3.1]alkanones with trans Intrabridgehead Stereochemistry," *J. Am. Chem. Soc.* **1991**, *113*, 8839-8846.
29. J. Winkler, E. Gretler, "Stereoselective Cyclopropanation of Homoallylic Alcohols. Formal Attachment of a Cyclopropane to a Preexisting Ring," *Tetrahedron Lett.* **1991**, 5733-36.
30. J. Winkler and D. Subrahmanyam, "Studies Directed Towards the Synthesis of Taxol: Preparation of C-13 Oxygenated Taxane Congeners," *Tetrahedron* **1992**, *48*, 7049-7056.
31. J. Winkler, E. Gretler, P. Williard, "Studies Directed Towards the Synthesis of the Ingenane Diterpenes. An Unexpected Synthesis of trans-Bicyclo[5.3.0]Decanes," *J. Org. Chem.* **1993**, *58*, 1973-1975.
32. J. Winkler, B. Hong, A. Bahador, M. Kazanietz, P. Blumberg, "Synthesis of Ingenol Analogs with Affinity for Protein Kinase C," *Bioorg. Med. Chem. Lett.* **1993**, *3*, 577-580.
33. J. Winkler, B. Shao, "On the Stereoselectivity of the Intramolecular Dioxenone Photocycloaddition Reaction," *Tetrahedron Lett.* **1993**, 3355-3358.
34. J. Winkler, M. Siegel, and J. Stelmach, "A Highly Stereoselective Approach to the Synthesis of the Manzamine Alkaloids via the Intramolecular Vinylogous Amide Photocycloaddition," *Tetrahedron Lett.* **1993**, 6509-6512.

35. J. Winkler, K. Deshayes and Bin Shao, "Photochemical Binding, Release and Transport of Metal Ions." In *Bioorganic Photochemistry*, **1993**, Volume II, H. Morrison, Ed., Wiley, New York, Chapter 3, pp. 169-196.
36. J. Winkler, M. Siegel, "A Novel Photochemical Synthesis of Pyrroles from β -Ketovinylogous Amides," *Tetrahedron Lett.* **1993**, 7697-7700.
37. M. Siegel and J. Winkler, "Photochemistry of Enamines and Enaminones" In *The Chemistry of Enamines*, **1994**, S. Patai and Z. Rappaport, Eds., Wiley, New York, 637-679.
38. J. Winkler, K. Henegar, B. Hong and P. Williard, "Inside-Outside Stereoisomerism. 6. Synthesis of *trans*-Bicyclo[4.4.1]Undecan-11-one and the First Stereoselective Construction of the Ingenane Nucleus," *J. Am. Chem. Soc.* **1994**, 116, 4183-4188.
39. J. Winkler, B. Hong, "*Trans*-Bicyclo-[5.3.1]undecan-11-one," in Photochemical Key Steps in Organic Synthesis **1994**, J. Mattay and A. Griesbeck, Eds., VCH, Weinheim, 109-111.
40. K. Davis, T. Berrodin, T., J. Stelmach, J. Winkler, M. Lazar, "Endogenous RXRs can function as hormone receptors in pituitary cells," *Molecular and Cell Biology* **1994**, 14, 7105-7110.
41. J. Winkler, S. Kim, K. Condroski, A. Asensio, K. N. Houk, "Stereoselective Synthesis of Polycyclic Ring Systems via the Tandem Diels-Alder Reaction," *J. Org. Chem.* **1994**, 59, 6879-6881.
42. J. Winkler, B. Hong, "Transannular Radical Reactions in Bicycloalkanes with 'Inside-Outside' Stereochemistry. An Unusual Bridgehead Hydroxylation," *Tetrahedron Lett.* **1995**, 683-686.
43. J. Winkler, H. Kim, S. Kim, "A Highly Efficient Synthesis of Taxanes via the Tandem Diels-Alder Reaction," *Tetrahedron Lett.* **1995**, 687-691.
44. J. Winkler, B. Hong, A. Bahador, M. Kazanietz, P. Blumberg, "Methodology for the Synthesis of 3-Oxygenated Ingenanes--The First Ingenol Analogs with High Affinity for Protein Kinase C," *J. Org. Chem.* **1995**, 60, 1381-1390.
45. J. Winkler, S. Bhattacharya, F. Liotta, R. Batey, G. Heffernan, D. Cladingboel, R. Kelly, "Stereoselective Synthesis of A Synthon for the A-Ring of Taxol from R-(+)-Verbenone," *Tetrahedron Lett.* **1995**, 2211-2215.
46. J. Winkler, B. Hong, S. Kim, N. Lewin, P. Blumberg, "On the Protein Kinase C Pharmacophore: Synthesis and Biological Activity of 4-Hydroxylated Analogs of Ingenol," *Synlett* **1995**, 533-535.

47. H. Li, S. Narasimhulu, L. Havran, J. Winkler, T. Poulos, "Crystal Structure of Cytochrome P-450 Complexed with Its Catalytic Product, 5-Exo-Hydroxycamphor," *J. Am. Chem. Soc.* **1995**, *117*, 6297-6299.
48. J. Winkler, C. Mazur, and F. Liotta, "[2+2]Photocycloaddition-Fragmentation Strategies for the Synthesis of Natural and Unnatural Products," *Chem. Rev.* **1995**, *95*, 2003-2020.
49. J. Winkler, "The Tandem Diels-Alder Reaction," *Chem. Rev.* **1996**, *96*, 167-176.
50. J. Winkler, J. Stelmach, J. Axten, "Two Highly Efficient Syntheses of Scalemic Azocines," *Tetrahedron Lett.* **1996**, 4317-4320.
51. J. Winkler, S. Bhattacharya, R. Batey, "Synthesis of a Taxinine Congener via the Intramolecular Diels-Alder Cycloaddition," *Tetrahedron Lett.* **1996**, 8069-8072.
52. J. Winkler, J. Holland, D. Peters, "Synthesis of Cyclopropyl Taxane Analogs via Sequential Diels-Alder Reactions," *J. Org. Chem.* **1996**, *61*, 9074-9075.
53. J. Winkler and P. Axelsen, "A Model for the Taxol/Epothilone Pharmacophore," *Bioorg. Med. Chem. Lett.* **1996**, *6*, 2963-2966.
54. J. Winkler, H. Kim, S. Kim, K. Ando, K. Houk, "Stereoselective Synthesis of the Taxane Ring System via the Tandem Diels-Alder Cycloaddition," *J. Org. Chem.* **1997**, *62*, 2957-2962.
55. J. Winkler, J. Stelmach, M. Siegel, N. Haddad, J. Axten, W. Dailey, "An Approach to the Synthesis of the Manzamine Alkaloids via the Vinylogous Amide Photocycloaddition-retro-Mannich Fragmentation-Mannich Closure Cascade," *Isr. J. Chem.* **1997**, *37*, 47-67.
56. S. Kim, J. Winkler, "Approaches to the Synthesis of Ingenol," *Chem. Soc. Rev.* **1997**, *26*, 387-400.
57. J. Winkler, E. Doherty, "Control of Relative Stereochemistry of Quaternary Carbon Centers via the Intramolecular Dioxenone Photocycloaddition: An Approach to the Synthesis of Saudin," *Tetrahedron Lett.* **1998**, 2253-2256.
58. J. Winkler, C. Bowen, V. Michelet, "Photodynamic Fluorescent Metal Ion Sensors with ppb Sensitivity," *J. Am. Chem. Soc.* **1998**, *120*, 3237-3242.
59. S. Narasimhulu, L. Havran, P. Axelsen, J. Winkler, "Interactions of Substrate and Product with Cytochrome P450," *Arch. Biochem. Biophys.* **1998**, *353*, 228-238.
60. J. Winkler, J. Axten, H. Hammach, Y. Kwak, M. Lucero, K. Houk, "Stereoselective Synthesis of the Tetracyclic Core of the Manzamine Alkaloids via the Vinylogous Amide Photocycloaddition Cascade: A Remarkable Effect of Azocine Unsaturation

on the Stereochemical Outcome of the Photocycloaddition Reaction," *Tetrahedron* **1998**, 54, 7045-7056.

61. J. Winkler, W. McCoull, "Diels-Alder Reaction on Solid Supports Using Polymer-Bound Oxazolidinones," *Tetrahedron Lett.* **1998**, 4935-4936.
62. J. Winkler, J. Axten, "The First Total Syntheses of Ircinol A, Ircinal A, and Manzamines A and D," *J. Am. Chem. Soc.* **1998**, 120, 6425-6426.
63. J. Winkler, Y. Kwak, "An Approach to Controlled Oligomerization via Iterative Diels-Alder Cycloadditions on Solid Supports," *J. Org. Chem.* **1998**, 63, 8634-8635.
64. J. Axten, L. Krim, H. Kung, J. Winkler, "An Improved Synthesis of *dl*-threo-Methylphenidate. Preparation and Biological Evaluation of Novel Analogs," *J. Org. Chem.* **1998**, 63, 9628-9629.
65. J. Winkler, S. Kim, S. Harrison, N. Lewin, P. Blumberg, "Synthesis and Biological Evaluation of Highly Functionalized Analogs of Ingenol: The Importance of Hydrophobic Effects on Binding to Protein Kinase C," *J. Am. Chem. Soc.*, **1999**, 121, 296-300.
66. G. Collins, L. Choi, K. Ewing, V. Michelet, C. Bowen, and J. Winkler, "Photoinduced Switching of Metal Complexation by Quinolinospiropyranindolines in Polar Solvents," *J. Chem. Soc., Chem. Commun.* **1999**, 321-322.
67. J. Winkler, J. Holland, J. Kaspavec, and P. Axelsen, "Synthesis and Biological Evaluation of Constrained Epothilone Analogs: The Efficient Synthesis of Eleven-Membered Rings by Olefin Metathesis," *Tetrahedron* (invited contribution to Symposium-in-Print on Olefin Metathesis in Synthesis) **1999**, 55, 8199-8214.
68. J. Axten, R. Ivy, L. Krim, J. Winkler, "An Enantioselective Synthesis of d-threo-Methylphenidate," *J. Am. Chem. Soc.* **1999**, 121, 6511-6512.
69. J. Winkler, E. Doherty, "The First Total Synthesis of (\pm)-Saudin," *J. Am. Chem. Soc.* **1999**, 121, 7425-7426.
70. L. Evans, G. Collins, R. Shaffer, V. Michelet, J. Winkler, "Selective Metals Determination with a Photoreversible Spirobenzopyran," *Anal. Chem.* **1999**, 71, 5322-5327.
71. J. Winkler, E. Piatnitski, J. Mehlmann, J. Kaspavec, P. Axelsen, "Design and Synthesis of Novel Foldamers Based on an Anthracene Diels-Alder Adduct," *Angew. Chem. Int. Ed. Engl.* **2001**, 40, 743-745.
72. Y. Kwak, J. Winkler, "Synthesis of 6-Aza-Bicyclo[3.2.1]Octan-3-Ones via Vinylogous Imide Photochemistry: An Approach to the Synthesis of the Hetisine Alkaloids," *J. Am. Chem. Soc.* **2001**, 123, 7429-7430.

73. F. Ichinose, J. Erana-Garcia, J. Hromi, Y. Raveh, R. Jones, L. Krim, M. Clark, J. Winkler, K. Bloch, W. Zapol, "Nebulized sildenafil is a selective pulmonary vasodilator in lambs with acute pulmonary hypertension," *Critical Care Medicine* **2001**, 29, 1000-1005.
74. G. Collins, R. Morris, J. Wei, M. Smith, M. Hammond, V. Michelet, J. Winkler, "Spectrophotometric Detection of Trace Copper Levels in Jet Fuel," *Energy & Fuels* **2002**, 169, 1054-1058.
75. J. Winkler, M. Rouse, M. Greaney, S. Harrison, Y. Jeon, "The First Total Synthesis of Ingenol," *J. Am. Chem. Soc.* **2002**, 124, 9726-9728.
76. J. Winkler, S. Harrison, M. Greaney, M. Rouse, "Mechanistic Observations on the Unusual Reactivity of Dioxenone Photosubstrates in the Synthesis of Ingenol," *Synthesis* (Special Issue Dedicated to Professor Dieter Seebach) **2002**, 2150.
77. J. Winkler, K. Quinn, C. MacKinnon, S. Hiscock, E. McLaughlin, "Tandem Diels-Alder Approach to the Synthesis of Eleutherobin," *Org. Lett.* **2003**, 5, 1805.
78. R. Doerksen, B. Chen, J. Yuan, J. Winkler, M. Klein, "Novel Conformationally-Constrained β -Peptides Characterized by ^1H NMR Chemical Shifts," *Chem. Commun.*, **2003**, 2534-2535.
79. D. Liu; S. Choi; B. Chen; R.J. Doerksen; D.J. Clements; J.D. Winkler; M.L. Klein; W.F. DeGrado. "Nontoxic Membrane-Active Antimicrobial Arylamide Oligomers," *Angew. Chem. Int. Ed.* **2004**, 43, 1158-1162.
80. J. Winkler, P. Mikochik, "Synthesis of Cyclic Hemiketals and Spiroketal from Dioxanorbornanes," *Org. Lett.*, **2004**, 6, 3735-3737.
81. J. Winkler, S. Asselin, S. Shepard, J. Yuan, "Metathesis Approach to the Synthesis of Polyheterocyclic Structures from Oxanorbornenes," *Org. Lett.*, **2004**, 6, 3821-3824.
82. H. Kung, S. Newman, S. Choi, S. Oya, C. Hou, Z. Zhuang, P. Acton, K. Ploessl, J. Winkler, M. Kung, "2-(2-(Dimethylaminomethyl)phenoxy)-5-iodophenylamine: An Improved Serotonin Transporter Imaging Agent," *J. Med. Chem.* **2004**, 47, 5258-5264.
83. J. Winkler, E. McLaughlin, "Intramolecular Photocycloaddition of Dioxenones with Alkynes: Formation of Secondary Photoproducts from Cyclobutene Photoadducts," *Org. Lett.*, **2005**, 7, 227-229.
84. J. Winkler, K. Oh, S. Asselin, "Synthesis of Highly Functionalized Furanones via Aldol Reaction of 3-Silyloxyfurans," *Org. Lett.*, **2005**, 7, 387-389.
85. J. Winkler, E. Lee, L. Nevels, "A Pauson-Khand Approach to the Synthesis of Ingenol," *Org. Lett.*, **2005**, 7, 1489-1491.

86. J. Winkler, K. Oh, "A One-Step Synthesis of 2,3-Dihydro-4*H*-pyran-4-ones from 3-Ethoxy α,β -Unsaturated Lactones," *Org. Lett.* **2005**, 7, 2421-2423.
87. S. Choi, D. Clements, V. Pophristic, I. Ivanov, S. Vemparala, J. Bennett, M. Klein, J. Winkler, W. DeGrado, "The Design and Evaluation of Heparin-Binding Foldamers," *Angew. Chem. Int. Ed.* **2005**, 44, 6685-6689.
88. W. Wang, W. Ho, D. Dicker, C. MacKinnon, J. Winkler, R. Marmorstein, W. El-Deiry, "Acridine Derivatives Activate p53 and Induce Tumor Cell Death Through Bax," *Cancer Biology and Therapy* **2005**, i, 893-898.
89. J. Winkler, E. Lee, "Photochemical Route to the Synthesis of Thiolane 1-Oxides," *J. Am. Chem. Soc.* **2006**, 128, 9040-9041.
90. J. Winkler, A. Londregan, M. Hamann, "Antimalarial Activity of a New Family of Analogs of Manzamine A," *Org. Lett.*, **2006**, 8, 2591-2594.
91. J. Winkler, A. Londregan, J. Ragains, M. Hamann, "Synthesis and Biological Evaluation of Manzamine Analogues," *Org. Lett.*, **2006**, 8, 3407-3409.
92. J. Winkler, J. Ragains, "Intramolecular Photocycloaddition of Vinylogous Amides with Allenes: A Novel Approach to the Synthesis of Pyrroles," *Org. Lett.*, **2006**, 8, 4031-33.
93. J. Winkler, S. Asselin, "Synthesis of Novel Heterocyclic Structures via Reaction of Isocyanides with S-trans-Enones," *Org. Lett.*, **2006**, 8, 3975-77.
94. J. Ragains, J. Winkler, "Pseudosymmetry in azabicyclo[2.1.1.]hexanes. A Stereoselective Construction of the Bicyclic Core of the Ring System of Peduncularine," *Org. Lett.*, **2006**, 8, 4437-4440.
95. W. Jiang, P. Mikochik, J. Ra, H. Lei, K. Flaherty, J. Winkler, F. Spitz, "HIV Protease Inhibitor Nelfinavir Inhibits Growth of Human Melanoma Cells by Induction of Cell Cycle Arrest," *Cancer Research* **2007**, 67, 1221-1227.
96. J. Winkler, A. Londregan, M. Hamann, "Synthetic Modification of Manzmaine A via Grubbs Metathesis. Novel Structures with Enhanced Antibacterial and Antiprotozoal Properties," *Org. Lett.* **2007**, 9, 4467-4469.
97. S. Choi, G. Vilaire, C. Marcinkiewicz, J. Winkler, J. Bennett, W. Degrado, "Small Molecule Inhibitors of Integrin $\alpha 2\beta 1$," *J. Med. Chem.* **2007**, 50, 5457-5462.
98. J. Winkler, M. Fitzgerald, "Stereoselective Synthesis of 8-Substituted 6-Azabicyclo[3.2.1]-octan-3-ones," *Synlett* **2009**, 562-564.
99. S. Choi, A. Isaacs, D. Clements, D. Liu, H. Kim. R. Scott, J. Winkler, W. Degrado, "De Novo Design and in vivo Activity of Conformationally Restrained Antimicrobial Arylamide Foldamers," *Proc. Natl. Acad. Sci.* **2009**, 106, 6968-6973.

100. H. Jo, M. Fitzgerald, J. Winkler, "An Unusual Pathway to Cyclobutane Formation via Desulfurative Intramolecular Photocycloaddition to an Enone Benzothiazoline Pair," *Org. Lett* **2009**, *11*, 1685-1687.
101. J. Winkler, A. Isaacs, L. Holderbaum. V. Tatard, N. Dahmane, "Design and Synthesis of Inhibitors of Hedgehog Signaling Based on the Alkaloid Cyclopamine" *Org. Lett* **2009**, *11*, 2824-2827.